



IMC 0350 Meeting

February 22, 2005

Desired Outcomes

- Demonstrate Davis-Besse's operations continue to be safe and conservative
- Discuss site activities since last meeting
- Status the improvement initiatives and Confirmatory Order Independent Assessments



Mark Bezilla
Vice President

Meeting Agenda

- Plant Performance.....Barry Allen
- Steam Generator Inspection - Mid-Cycle Outage..Barry Allen
- Independent Assessments
 - Engineering Program Effectiveness.....Steve Loehlein
 - Organizational Safety Culture, including SCWE...Mark Bezilla
- Oversight Perspective.....Ray Hruby

Plant Performance

Barry Allen
Director - Site Operations



People with a strong safety focus delivering top fleet operating performance



■ Plant Status

- ~100% power
- ~ 945 Mwe
- 13 continuous days of service
- 40 Human Performance success days

Plant Performance



■ Noteworthy items

- December 16 - NRC Biennial Problem Identification and Resolution (PI&R) Inspection Team exit
- December 17 - Monthly Performance Review
- December 21 - Dr. Sonja Haber conducted a debrief of the Confirmatory Order Independent Assessment of SC/SCWE
- December 23 - Entered Station Isolation procedure (winter weather)

Plant Performance

■ Noteworthy items (continued)

- January 5 - Dr. Sonja Haber presented the results the Safety Culture / Safety Conscious Work Environment to site employees
- January 10 -12 - Industry Accreditation Team Lead Visit
- January 13 - Loss of D1 Electrical Bus
- January 17 - Started Steam Generator Inspection - Mid-Cycle Outage
- January 17 - 21 - Industry Assist Visit - Operations Performance
- January 18 - 28 - NRC Mid-Cycle Inservice Inspection



Outage Control Center

Plant Performance



FENOC President tours plant



FE Executive VP & COO tours plant

■ Noteworthy items (continued)

- January 18 - 27 - NRC ALARA and Radworker Access Control Inspection
- January 20 - Plant tour by FENOC President
- January 25 - Plant visit by NRC 0350 Panel Chairman and Region III Branch Chief
- February 3 - Tour by FirstEnergy Executive Vice-President & Chief Operating Officer
- February 9 - End of Steam Generator Inspection - Mid-cycle Outage and synchronize turbine to grid

Plant Performance

■ 2005 Key Events Calendar

- February 15 - 17 - Mock Fleet Support/Corporate Evaluation
- March 14 - 18 - Industry Technical Skills Training Accreditation Team Visit
- March 28 - April 1 - Industry Primary Systems Integrity Review Visit
- April 18 - May 6 - NRC Safety System Design and Performance Capability Inspection
- May 16-20 - NRC Biennial Maintenance Rule Inspection
- May 17 - Evaluated Emergency Preparedness Exercise
- August - Industry Plant, Corporate, & Simulator Evaluation (*Tentative)
- October - Industry Operations Training Accreditation Team Visit



Restart Readiness Meeting

Conclusion

FENOC

Strategic Objectives:

- ▶ Safe Plant Operations
- ▶ People Development and Effectiveness
- ▶ Improved Outage Performance
- ▶ Excellent Materiel Condition
- ▶ Fleet Efficiency and Effectiveness

- Davis-Besse's operations continue to be safe and conservative

Steam Generator Inspection- Mid-Cycle Outage

Barry Allen
Director - Site Operations



Steam Generator Inspection - Mid-Cycle Outage

Accomplishments

- January 17, 2005 - February 9, 2005
- Focus on **SAFETY**
 - No Lost Time Accidents
 - No OSHA recordable accidents
 - Shutdown Safety maintained
 - Effective RCS Cleanup
 - Good radiological performance
 - Improved plant materiel condition
 - Set positive tone for the year



Employees FOCUSED on SAFETY

Steam Generator Inspection - Mid-Cycle Outage

Accomplishments

■ Project List

- Once-Through Steam Generator Eddy Current Testing
- Train 2 Station Battery Replacement
- Reactor Head and Under Vessel Inspections
- Control Rod Drive Mechanism Flange Inspections
- Boric Acid Corrosion Control Inspections
- Pressurizer Nozzle Inspections
- Reactor Coolant Pump Inspections
- Refueling Canal Liner Repair



Lifting battery cells

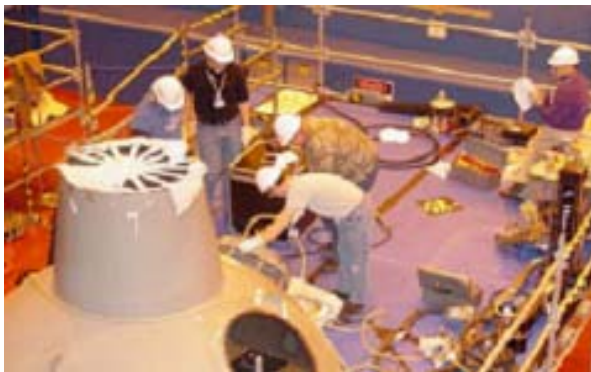
Steam Generator Inspection - Mid-Cycle Outage Accomplishments



Polar Crane Modifications



Turbine Bypass Valves



Training on Steam Generator Mock-up



Steam Generator Inspection

Steam Generator Inspection - Mid-Cycle Outage Accomplishments

- Operator Burdens Fixed
 - Eight Control Room Deficiencies
 - Three Level 1 Workarounds
 - One Level 2 Workarounds
 - Ten Temporary Modifications removed



Control Room

Steam Generator Inspection - Mid-Cycle Outage

Control Room - Level 1 Workaround

■ Control Rod Drive Transfer Pulser

—Issue

- Control Rods could not be remotely transferred to their auxiliary power supply

—As Left Condition

- CRD remote transfer function restored



Removed CRD Transfer Pulser

Steam Generator Inspection - Mid-Cycle Outage

Control Room - Level 2 Workaround

- Electro-Hydraulic Control -24 VDC Ground
 - Issue
 - Intermittent grounds
 - As Left Condition
 - Grounds cleared



Ground configuration

Steam Generator Inspection - Mid-Cycle Outage

Control Room - Deficiencies

- Rod 2-3 Actual Position Indicator
 - Issue
 - Position Indication erratic
 - As Left Condition
 - Relays replaced and position indication restored



**Control Rod
position indicator**



Replaced Relay

Steam Generator Inspection - Mid-Cycle Outage

Control Room - Deficiencies

■ Main Steam 101 Valve Indicator

–Issue

- Open indicating light failed to illuminate



MS101 Control Room indicator

–As Left Condition

- Limit switch adjusted and tested satisfactorily



Limit switch ZS101D

Steam Generator Inspection - Mid-Cycle Outage

Control Room - Deficiencies

■ Control Switch HIS197B (Valve switch) malfunctioning

–Issue

- Control switch loose

–As Left Condition

- Control switch replaced
- Tested satisfactorily



**Replaced indicator
HIS197B**

Steam Generator Inspection - Mid-Cycle Outage

Control Room - Deficiencies

- Flow Indicating Controllers
ICS32A & B Indicator
 - Issue
 - Indicator meter offset
 - As Left Condition
 - Indicators calibrated and returned to service



FIC ICS32A



FIC ICS32B

Steam Generator Inspection - Mid-Cycle Outage

Control Room - Deficiencies

- Reactor Coolant Pump 2-1 Seal Standpipe
 - Issue
 - Seal standpipe alarm malfunction
 - As Left Condition
 - Relay replaced and alarm function restored



RCP Seal Standpipe

Steam Generator Inspection - Mid-Cycle Outage

Control Room - Deficiencies

- Cooling Tower Valve 861
Indicating Light
 - Issue
 - Indicating light failed to illuminate
 - As Left Condition
 - Indicating light repaired



Control Room indication for
CT861

Steam Generator Inspection - Mid-Cycle Outage

ZONE 2 - Level 1 Workaround

■ Turbine Bypass Valves SP13A2 & SP13A3

—Issue

- Valves sticking

—As Left Condition

- Actuators modified and valves response satisfactory



Unmodified valve



**Valve after Engineering
Change Package**

Steam Generator Inspection - Mid-Cycle Outage

Emergent Issues

■ Cooling Tower Icing



Steam Generator Inspection - Mid-Cycle Outage

Emergent Issues

■ Decay Heat Pump #2 Mechanical Seal



Steam Generator Inspection - Mid-Cycle Outage

Conclusion

- Davis-Besse Steam Generator Inspection Outage was well planned, well-coordinated, and safely executed
- Plant equipment and systems support continued safe operation

Independent Assessments

Steve Loehlein
Director - Engineering



Independent Assessments

Confirmatory Order Action Plan

■ 2004 Schedule

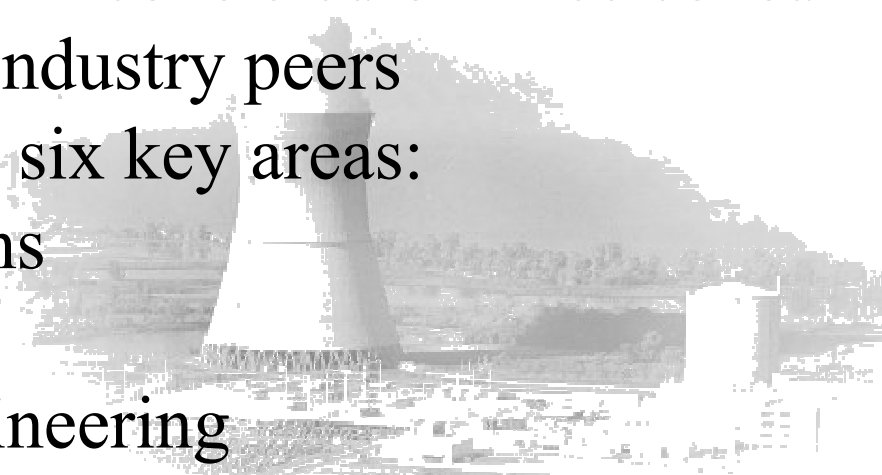
- Operations Performance (August)
- Corrective Action Program Implementation (September)
- Engineering Program Effectiveness (October)
- Organizational Safety Culture, including SCWE (November)

■ 2005 Schedule (tentative)

- Operations Performance (June)
- Corrective Action Program Implementation (July)
- Organizational Safety Culture, including SCWE (November)
- Engineering Program Effectiveness (December)

Independent Assessments Engineering Programs

- Dates: October 10 - 22, 2004
- Assessment Team consisted of three consultants and three senior nuclear industry peers
- Scope included six key areas:
 - Modifications
 - Calculations
 - System Engineering
 - Use of Corrective Action Program
 - Management topics
 - Self-Assessments



Independent Assessments

Engineering Programs

- Assessment Team found engineering program to be generally effective
- Team's findings consisted of:
 - 3 Strengths
 - 3 Areas For Improvement
 - 3 Positive Noteworthy Items
 - 13 Negative Noteworthy Items

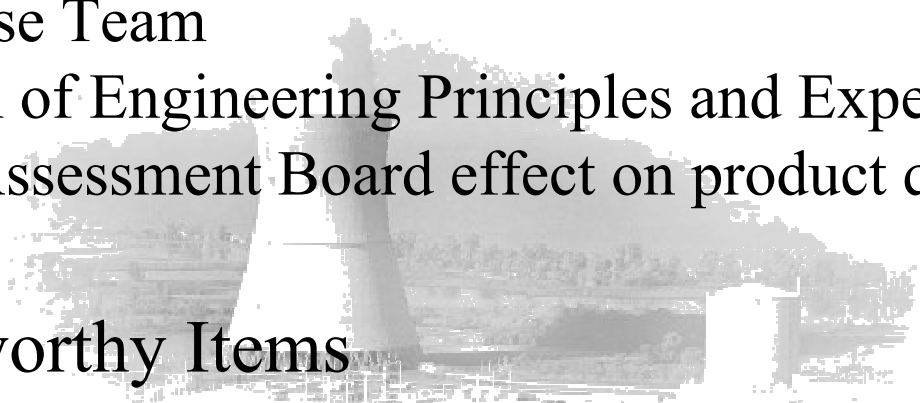
Independent Assessments Engineering Programs

- Areas For Improvement included
 - Closure of some modifications
 - Management focus on and rate of progress of the Calculation Improvement Program
 - Self-Assessment schedule and consistency in performance
- Noteworthy Items
 - Selection and prioritization of modifications
 - System Description content
 - Focus of Margin Management initiative
 - System Health Rating
 - System Health Improvement plans elements

Independent Assessments Engineering Programs

- Noteworthy Items (continued)
 - Access to calculations by system engineers
 - Level of fleet counterpart interactions
 - Acceptance of corrective actions
 - Parallel processes interfaces
 - Engineering management tools and techniques for planning, scheduling, assigning work
 - Backlog reduction
 - Human Resource development
 - Engineering Rigor and Attention to Detail

Independent Assessments Engineering Programs

- 
- Strengths included
 - Rapid Response Team
 - Internalization of Engineering Principles and Expectations
 - Engineering Assessment Board effect on product quality
 - Positive Noteworthy Items
 - Implementation and use of the Calculation Utility
 - Effective use of the Design Interface Evaluation (DIE)
 - System Engineering Support of the Plant

Independent Assessments

Engineering Programs

■ Conclusions

- Engineering Programs were found to be generally effective at Davis-Besse
- Measurable improvement over past performance is evident
- Our goal remains to be continuously improving

Independent Assessments

Organizational Safety Culture, including SCWE

Mark Bezilla
Vice President



Independent Assessments

Organizational Safety Culture, including SCWE

- Dates: Conducted during November/December 2004
- Team Members:
 - Dr. Sonja B. Haber, Human Performance Analysis, Team Leader
 - Dr. Deborah A. Shurberg, Independent Consultant (Human Performance Analysis)
 - Rear Admiral (Ret.) Whitney Hansen, Independent Consultant (Dolphin Enterprises)
 - Aldo Capristo, Fleet Employee Concerns Program Manager, Nuclear Management Co.
- Assessment Team found that the Safety Culture and Safety Conscious Work Environment at Davis-Besse had not significantly changed since the last independent assessment conducted in February 2003

Independent Assessments

Organizational Safety Culture, including SCWE

- Safety Culture behavior and attitudes are not something that are changed in the short term; and initiatives by management must be continually assessed to ensure long term changes

Independent Assessments

Organizational Safety Culture, including SCWE

■ Areas For Improvement:

- Although safety is a recognized value in the organization, it is inconsistently internalized across all levels of personnel
- Accountability and ownership for safety are not yet universally accepted at all levels within the organization
- Safety is not yet consistently integrated into all activities in the organization
- An integrated and cohesive organizational safety leadership process is not clearly evident
- A learning-driven organization is still not fully developed
- The process for establishing a strong and effective and sustainable SCWE continues to need management attention

Independent Assessments

Organizational Safety Culture, including SCWE

■ Cross-cutting issues

- FENOC and Davis-Besse Senior Management need to develop a long-term strategic vision and plan for a safety culture and safety conscious work environment
- A focus on trust needs management attention at all levels in the FENOC and Davis-Besse organizations
- Challenges in communication in the Davis-Besse organization with respect to clear and consistent expectations, standards, and values, continue to require management actions
- A management focus should be placed on safety being internalized by all employees as a way of doing business

Independent Assessments

Organizational Safety Culture, including SCWE

- 
- A faded, grayscale background image of a power plant, showing various structures and piping.
- Cycle 14 Operational Improvement Plan
 - Continuous Safety Culture Improvement Initiative
 - Periodic monitoring of Safety Culture and Safety Conscious Work Environment

Independent Assessments

Organizational Safety Culture, including SCWE

■ Actions/Action Plan

– Immediate Actions

- Davis-Besse commissioned an independent team to facilitate an internal assessment of the results obtained from the annual internal SCWE survey conducted in October 2004
- The COIA results were presented by the Independent Assessment Team Lead to management and representatives of the workforce
- The COIA results were again presented by the Independent Assessment Team Lead to site personnel at an All-Hands session

Independent Assessments

Organizational Safety Culture, including SCWE

■ Actions/Action Plan

– Short Term Actions

- The management team adopted the following areas of focus to demonstrate a clear overriding priority for Nuclear, Industrial, Radiological, and Environmental Safety for the 2005 Steam Generator Inspection Mid-Cycle Outage
 - Safety vs. Schedule Focus
 - Overall Communication Quality
 - Openness of Communication of Emergent Issues
 - Openness for Employees Ideas for Solutions to Emergent Issues
 - Resolution and Disposition of Emergent Issues
 - Engagement of the Workforce

Independent Assessments

Organizational Safety Culture, including SCWE

■ Actions/Action Plan

- Short Term Actions (continued)
 - A follow-up employee survey will be performed to see how actions and behaviors were perceived by the organization
 - FENOC will review the organizational hierarchy of the Employee Concerns Program
 - Develop and implement a communication campaign to re-familiarize employee with the FENOC Employee Concerns Program and the Safety Conscious Work Environment Review Team functions

Independent Assessments

Organizational Safety Culture, including SCWE

■ Actions/Action Plan

– Long Term Actions

- Davis-Besse will engage the workforce through the Teamwork, Ownership, Pride (TOP) Team supplemented by other employees from the organization, to work as a multidiscipline/cross-functional team for the purpose of developing and communicating alignment and communication tools to facilitate the communication and continued learning of FENOC/Davis-Besse visions, values, standards and expectations, priorities, including short and long-term goals for the organization

Independent Assessments

Organizational Safety Culture, including SCWE

■ Actions/Action Plan

- Long Term Actions (continued)
 - Perform a modified mid-period SCWE Survey following the organizational alignment sessions to evaluate the initial effectiveness of this initiative
 - Actions will be developed and implemented to devote more time in the work-week for the manager/supervisor and manager/employee interactions for listening to and addressing issues and concerns

Independent Assessments

Organizational Safety Culture, including SCWE

■ Actions/Action Plan

– Long Term Actions

- FENOC and Davis-Besse will assess the following Safety Culture and SCWE monitoring and assessment tools to identify opportunities to enhance their effectiveness
 - FENOC Safety Culture Monitoring and Assessment Business Practices
 - The Quarterly Safety Conscious Work Environment Performance Indicators
 - The Annual SCWE Survey questions
 - The Davis-Besse Weekly 3-Question survey questionnaire

Independent Assessments

Organizational Safety Culture, including SCWE

■ Conclusions

- Implementation of these Actions/Actions Plan will further enhance and drive long term improvement in the Safety Culture and Safety Conscious Work Environment at Davis-Besse

Oversight Perspective

Ray Hruby

Manager – Nuclear Oversight - DB



Oversight Perspective

4th Quarter Assessment Report

- Audited 14 Primary Elements
 - 3 rated Effective
 - 11 rated Satisfactory

- Reconciled 5 Program Areas
 - 2 rated Satisfactory
 - 3 rated Marginally Effective

Oversight Perspective

Insights and Future Focus Areas

- Training
- Procedure Content and Adherence
- Organizational Performance
- Future Focus Areas
 - Operations Performance
 - FENOC Reorganization Implementation
 - Training

Closing Comments

FENOC Vision:

People with a strong safety focus
delivering top fleet operating
performance

Mark Bezilla
Vice President

Actions for Continuous Improvement

- Integrated Restart Report dated November 23, 2003 & Supplement to report dated February 6, 2004
 - Appendix A Commitments 38
 - Closed to date 31
- Cycle 14 Operational Improvement Plan
 - Appendix D Commitments 94
 - Closed to date 71